UNITED STATES PATENT AND TRADEMARK OFFICE

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/888,095	06/22/2001	Louis Arquie	K35A0772	7928

25235	7590	09/20/2004

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EXAMINER
HARRISON, CHANTE E

ART UNIT	PAPER NUMBER
2672	

DATE MAILED: 09/20/2004

13

Please find below and/or attached an Office communication concerning this application or proceeding.

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE _3_ MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.
- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on _12 July 2004_.

2a)☐ This action is **FINAL.**   2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) _1-16_ is/are pending in the application.

   4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) _1-16_ is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

   Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

   Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

   a)☐ All   b)☐ Some * c)☐ None of:

   1.☐ Certified copies of the priority documents have been received.

   2.☐ Certified copies of the priority documents have been received in Application No. _____.

   3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

   * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application (PTO-152)

6)☐ Other: _____.

DETAILED ACTION

1.   This action is responsive to communications: Amendment B filed on

3/30/04 and RCE, filed on 7/12/04.

2.   Claims 1-16 are pending in the case. Claims 1, 10 and 12 are

independent claims. Claims 1, 10 and 12 have been amended.

Drawings

1.   The proposed drawing corrections and/or the proposed substitute sheets

of drawings, filed on 9/17/03 has been approved by Examiner. Thus, the

objection to the drawings for including and/or not including reference signs

mentioned in the description is withdrawn.

Claim Rejections - 35 USC § 103

1.   The following is a quotation of 35 U.S.C. 103(a) which forms the basis for

all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described
> as set forth in section 102 of this title, if the differences between the subject matter sought to
> be patented and the prior art are such that the subject matter as a whole would have been
> obvious at the time the invention was made to a person having ordinary skill in the art to which
> said subject matter pertains. Patentability shall not be negatived by the manner in which the
> invention was made.

2.   Claims 1-4, 7, 10-13, 14-16 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Patrick Hogan et al., US 5,414,809, 5/1995.

As per claims 1, 10 and 11, Hogan discloses forming a first layer of a multi-layer

representation wherein at least two nodes are represented separately (i.e.

display of independent root nodes) (col. 54, ll. 45-54); grouping the nodes of the

first layer into group nodes to form a second layer in the multi-layer

representation (i.e. grouping the root nodes with child nodes) (col. 53, ll. 60-65;

Fig. 5 "organization view"); grouping the group nodes of the second layer into a

third layer, the third layer having at least one connected-superset node

containing group nodes with nodes connected to each other (i.e. a root node of a

tree displayed as having two layers/levels of a descendant nodes) (Fig. 5

"organization view"); and displaying the superset nodes in the third layer so the

connected-superset node is separate from the isolated node to show a lack of

connection (i.e. displaying multiple trees where each tree may have its own

subtree or the tree may an isolated root node) (col. 54,ll. 45-50) and such that the

connected-superset node is selectively expandable to display group nodes and

connections between the nodes, and the isolated node is selectively expandable

to display group nodes of the second layer (i.e. for one or more trees visible on

the display the subtree beneath the selected node of a displayed tree may be

expanded) (col. 55-56, ll. 65-40). Hogan fails to specifically disclose at least one

isolated-superset node containing group nodes having nodes not physically

connected to each other or to the nodes of the connected-superset node. Hogan

teaches displaying isolated root nodes (col. 59, II. 29-40), and creating arcs and

nodes as predecessor or successor of existing arcs or nodes (col. 68, II. 55-67;

col. 69, II. 32-40). It would have been obvious to one of skill in the art to

incorporate an isolated-superset node comprising a set of the nodes connected

to other ones of the nodes with the disclosure of Hogan because adding arcs

and/or nodes to isolated root nodes of a relationship tree having levels of data

grouped based on their relation to other levels creates an isolated-superset node,

where a set of nodes is connected to other nodes not connected in an exiting

connected-superset node.

As per dependent claim 2, Hogan discloses creating a graph of nodes to be

displayed in the network as a leaf graph (Fig. 5 "organization view"; col. 63, II. 25-

30, 54-56).

As per dependent claim 3, Hogan discloses the leaf graph includes components

and interconnection paths of the network (i.e. nodes and arcs of a the network

view represent different data items, such that the nodes represent an item and

the arcs represent connecting relationships) (col. 61, II. 60-67; col. 65-66, II. 65-

5).

As per dependent claim 4, Hogan discloses the connected-superset node is laid

out according to layout rules (i.e. sorting arranges data items in the tree using a

criterion that affects how the tree is oriented on the display) (col. 59, II. 55-60, col. 60, II. 22-29).

As per dependent claim 7, Hogan discloses the connected-superset node is fully expandable while the isolated-superset node is minimized (col. 54, II. 45-50; col. 55, II. 65-67; col. 56, II. 10-11, 33-40).

As per independent claim 12, Hogan discloses a method of displaying nodes within a network topology comprising multiple layers (Fig. 12; col. col. 61, II. 60-67; col. 65-66, II. 65-5).

As per dependent claim 13, Hogan teaches the grouping criteria are based on functional relationships (i.e. relationship trees, such as a network view of a tree of related nodes, arrange nodes based on their relationship to items in higher and lower levels) (col. 59-60, II. 55-7).

As per dependent claim 14, Hogan discloses the functional relationships are defined to not require physical proximity in the network (i.e. tree nodes are represented based on their relationship or membership to a particular category) (col. 53, II. 55-60).

As per dependent claim 15, Hogan discloses during the expansion of the group nodes, continuing to display connections of the displayed nodes to remaining one

of the group nodes that have not been expanded (i.e. direct manipulation allows

expansion or collapse of subtree levels under the selected node, such that a tree

may be partially or fully expanded; a view menu allows user selection of focus on

a particular subtree or display of the actual root node) (col. 56, ll. 15-16, 23-25,

33-37, 55-62).

As per dependent claim 16, Hogan discloses the sets of nodes include a

connected-superset node comprising the nodes connected to each other (col.

54, ll. 45-50), but fails to specifically disclose an isolated-superset node

comprising a set of the nodes connected to other ones of the nodes. Hogan

teaches displaying isolated root nodes (col. 59, ll. 29-40), and creating arcs and

nodes as predecessor or successor of existing arcs or nodes (col. 68, ll. 55-67;

col. 69, ll. 32-40). It would have been obvious to one of skill in the art to

incorporate an isolated-superset node comprising a set of the nodes connected

to other ones of the nodes with the disclosure of Hogan because adding arcs

and/or nodes to isolated root nodes of a relationship tree having levels of data

grouped based on their relation to other levels creates an isolated-superset node,

where a set of nodes is connected to other nodes not connected in an exiting

connected-superset node.

3.   Claims 5-6 and 8-9 are rejected under 35 U.S.C. 103(a) as being

unpatentable over Hogan as applied to claim 1 above, and further in view of

Oliver Ibe et al., US 6,437,804, 8/2002.

As per dependent claim 5, Hogan fails to specifically disclose the group nodes in

the connected-superset node comprises any one or more switch groups and host

groups. Ibe discloses one or more switch groups (Fig. 1; col. 5, ll. 30-35), but

fails to specifically disclose one or more host groups. Ibe teaches (i.e. nodes

may represent network devices) (col. 4, ll. 60-67). Hogan teaches the network

view consists of data items and their connecting relationships (col. 61, ll. 60-65).

It would have been obvious to incorporate one or more host groups with the

disclosure of Ibe because network devices include components capable of

communicating data, where a host is a network component that communicates

via other network component such as hubs. It would have been obvious to one

of skill in the art to incorporate the Ibe's disclosure of one or more switch groups

and suggested teaching of one or more host groups with the disclosure of Hogan

because network data items represent all system elements and their connecting

relationship to other network data items.

As per dependent claim 6, Hogan fails to specifically disclose a layout rule

consist of the switch group with the highest connectivity being placed in the

center of the connected-superset node, which Ibe discloses (Fig. 11; col. 18, ll.

34-40). Hogan teaches providing alternate graphic object styles, which include

providing the selection of view styles that present different data dimensions (col.
17-18, ll. 62-12). It would have been obvious to one of skill in the art to
incorporate Ibe's disclosure of placing the group with the highest connectivity in
the center of the connected-superset node with the disclosure of Hogan because
a star configuration provides an alternate visualization of a single root node
having multiple data objects related it.

As per dependent claim 8, Hogan fails to specifically disclose the isolated-
superset node comprising any one or more unmapped hubs and isolated
switches, which Ibe discloses (i.e. nodes may represent network devices; and
uncovered nodes are those with weak-links and considered unconnected to other
nodes in the network) (col. 4, ll. 60-67; col. 6, ll. 13-15; col. 8, ll. 20-22, col. 9, ll.
2-4). Hogan teaches the network view consists of data items and their connecting
relationships (col. 61, ll. 60-65); and a view may have isolated nodes not
connected to other nodes representing data items in a network (col. 54, ll. 45-50).
It would have been obvious to one of skill in the art to incorporate Ibe's disclosure
of isolated-superset nodes representing unmapped hubs and switches with the
disclosure of Hogan because unmapped hubs and isolated switches are
examples of network data items that do not represent a connection to other
network components and would thus be displayed as an isolated node.

As per dependent claim 9, Hogan fails to specifically disclose the isolated group
node consists of isolated devices other than unmapped hubs and isolated

switches, which Ibe discloses (i.e. nodes may represent network devices, e.g.

bridges; and uncovered nodes are those with weak-links and considered

unconnected to other nodes in the network) (col. 4, ll. 60-67; col. 6, ll. 13-15; col.

8, ll. 20-22, col. 9, ll. 2-4). Hogan teaches the network view consists of data

items and their connecting relationships (col. 61, ll. 60-65); and a view may have

isolated nodes not connected to other nodes representing data items in a

network (col. 54, ll. 45-50). It would have been obvious to one of skill in the art to

incorporate Ibe's disclosure of the isolated group node consisting of devices

other than unmapped hubs and isolated switches with the disclosure of Hogan

because a network view displays the representation of a network data items,

which represents all system elements and their connecting relationship to other

network data items.

Response to Arguments

4.   Applicant's arguments, see pp. 7, Para 4, filed 3/30/04, with respect to the

rejection(s)of claim(s) 1-16 under Grau US 6,067,093 have been fully considered

and are persuasive. Therefore, the rejection has been withdrawn. However,

upon further consideration, a new ground(s) of rejection is made in view of

Patrick Hogan et al., US 5,414,809, 5/1995.
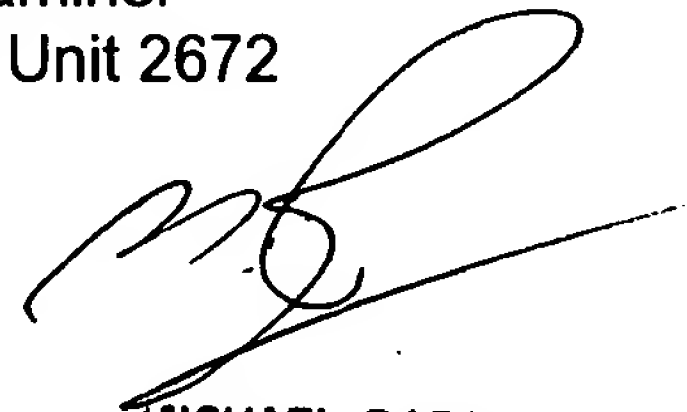
Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Chante Harrison whose telephone number is 703-305-3937. The examiner can normally be reached on Monday - Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mike Razavi can be reached on 703-305-4713. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Chante Harrison
Examiner
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ceh

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